6.3562

Observation During the 1958 Epidemic of Southern Pine Beetle

By A. E. Green

General Remarks

The southern pine beetle was first observed in February, 1957, on the Force and Smith Survey, located in Hardin County four (4) miles East of Saratoga, owned by Kirby Lumber Corporation. During the remainder of the year 1957 approximately one hundred (100) scattered trees were observed and controlled on the Force and Smith and the Richard Treet Surveys. These trees were scattered over approximately two hundred (200) acres.

On April 9, 1958, a flight was made by the Texas Forest Pest Committee and Southern Forest Experiment Station and several old kills were observed through the area bounded by Little Pine Island Bayou, Kountze-Sour Lake highway and Kountze-Saratoga highway or an area of approximately 60,000 acres. The spots were ground checked by foresters employed by Kirby and the Texas Forest Service and in a few incidences, active southern pine beetles were observed. For the most part the trees were post brood trees.

In the early part of May, Kirby had their personnel make a flight and noticed several spots with fading and brown trees. The infestation was then thought to be increasing so a meeting was called by the Texas Forest Pest Committee and it was decided to create a Federal project area or an area of infestation to start detection and control of the southern pine beetle. (A cooperative agreement was signed with the Federal Government between the United States Forest Service, the Texas Forest Service and cooperating land-owners, on June 9, 1958). The Texas Forest Service agreed to coordinate the project and District Forester, A. E. Green, was designated project coordinator. Immediately plans were formed for making necessary detection and control. A meeting was called at the Texas Forest Service Woodville Headquarters office, of the southern pine beetle advisory committee on May 27, 1958. See appendix for minutes of the meeting. The proposed plan was approved with the exception of raising necessary funds to commence operation. Copy of revised plan is attached.

The first detection flight by the project coordinator was made May 29, additional flights were made at two week intervals through the month of August, then one flight in September and the last in 1958 in October. The project was made inactive after October 13, 1958 flight because no active beetle spots were found.

The southern pine beetle was more evident in stands with 100 feet plus basal area, consisting mostly of pine volume, but in some cases the hardwood made up considerable part of the basal area. In some cases the basal area was close to 200 feet. I would estimate average was about 150 feet per acre, consisting of stems 1 inch d.b.h. and larger.

It is my opinion that the epidemic of southern pine beetle is due partly or all to the following items. Stands being overstocked, reduced in vigor, changes in moisture conditions such as prolonged drought then after drought covered in water or vice versa.

It appeared to me that the outbreak started to build up rapidly the first part of June and then about the middle of July started to decrease. Listed below is a summary of flights by dates showing spots observed.

Date	No. Spots Observed	No. Spots Showing Active Southern Pine Beetle
5/29/58	55	29
6/12/58	28	12
6/25/58	7	3
7/8/58	6	6
7/21/58	6	3
8/4/58	2	1
8/19/58	2	1
9/16/58	0	0
10/13/58	0	0
Totals	106	55

There was minor reinfestation from the controlled areas. This could have been due to several factors such as control work was satisfactory in bringing them under control, parasites help bring them under control and other unknown conditions may have caused them to decrease.

Detection

1. Air Observation: These observations were made at two week intervals during peak of epidemic. The observation party consisted of four, a pilot, navigator and two observers. The observers and navigators were employed by the Texas Forest Service and Kirby Lumber Corporation. The pilots were from F & F Flying Service of Beaumont. The plane used was a four place 172 Cessna, high wing and at a cost of $19.00 per hour. An average flight was about 1½ hours. The flight was tried with less personnel and we found that four was required to do a satisfactory job. Most of the flights were made at an altitude of 1000 to 1200 feet due to low cloud coverage. We tried different altitudes and I believe a better job could be done at 3500 feet if the weather would permit, but it is doubtful that this could be done in this particular area since during the summer there is a low cloud coverage most of the time. It is very necessary when flying at a low altitude that observation strip actually over lap to insure complete coverage. The area coverage from 1000 feet would be from one -half to one mile on each side of the plane. We found amber colored glasses a help in cutting haze and bringing out foliage coloration. Smoked amber and light yellow amber glasses are best for this purpose.

The location of infestation was made by using Texas Forest Service grid map one-half inch to the mile scale. This map had known points such as land lines of Kirby, Southwestern and Champion, pipe lines and roads. A transparent drafting film,sample attached, was used as an over-lay which had grid lines marked and numbered to record each flight separately. After each flight "flash reports" were prepared and mailed to the appropriate ground checkers. See appendix for copy.

After each flight a report, similar to the attached, was prepared by the project coordinator to the Chairman of the Advisory Committee, Marvin Angle, with a copy to each of the following: each member of the advisory committee; chairman, Pest Committee; Secretary, Texas Forestry Association; Texas Forest Service; Southern Forest Experiment Station and Regional Office U. S. Forest Service at Atlanta. This report included the number of new spots observed, progress on control and general observation of the observers on how the infestation was progressing.

2. Ground-Observation or Checking: It was decided at the May 27, 1958 meeting by the advisory committee that each of the following; Kirby, Southwestern, Champion, International and Angelina County Lumber Company, would be responsbile for ground checking infestations observed on their holdings. The Texas Forest Service, with the help of ground checkers furnished by International and Champion, would be responsbile for checking all other infestations.

On June 2, 1958, a training session was held near Kountze on an infestation on Kirby's holdings for the purpose of training ground checkers. The main items covered were:

(1). The use of Texas Forest Service grid maps.

(2). Identification of southern pine beetles.

(3). Instructions in filling out flash reports, what to do with them and where to send them.

The project coordinator assigned the ground checking to the parties concerned. The ground checkers were to complete the check in seven (7) days and return the flash reports to the project coordinator.

Ground checking was done with one to three persons. It was found that time was saved by using two or three persons with each taking a strip of area to look out adjoining to each other. Aerial photographs help considerably because they show timber types. It is helpful to ground checkers if they have objects on the ground associated with the infestion. These are items such as saw dust piles, proximity to roads, pipe lines, etc; these are in addition to grid location. No definite number of locations can be made per day due to several factors such as air observers missing locations, ground observers getting distance and direction wrong. In terrain such as the Big Thicket area we located on the ground from 0-5 plots in 10 hours a day. On only one day were 5 plots checked; in this case, the air observer who had seen the plot from the air accompanied the ground crew. I would say 1 or 2 plots a day in the Big Thicket would be a good rate of ground checking. The best method for finding the infestation on the ground is to look for the heavy pine stand near the given location, then find old kills, then search the area around it.

Control:

Observation was made of control operation by different cooperators. Some used two-man crews, others three-man crews and some four man crews. The two-man crews had one man cutting and one spraying. The three man crews had one cutting, two spraying and in some cases one cutting, one spraying and one trimming logs and turning. For the four man crews, some had two cutting and

two spraying. It was our observation that four-man crews would probably be most efficient if they consisted of one man with power saw, two men with four gallon sprayers and one man helping where needed or supervising the control operation. It was our observation the BHC 11% liquid mixed with #2 diesel oil in a mixture was sufficient for controlling the beetle. One gallon of BHC concentrate to 40 gallons of diesel fuel applied properly controlled the beetle.

After receiving the flash reports back from the ground checkers, job orders were issued by the project coordinator to the individuals or companies concerned for control on areas with brood trees. They were given 10 days to complete control.

The control crews were given training in control techniques by employees of the Texas Forest Service and Kirby Lumber Corporation. After the initial training the individuals or companies were responsible for training additional crews of their own.

The total detection and control job consisted of 81 persons with a breakdown as follows:

Air Detection	5
Ground Checkers	16
Control	60
Total	81

The following is a breakdown as to the number of owners with infestations and the approximate cost of control to each.

Cooperator	Supervision	Field Personnel	Equip. & Supplies	Equip. Maint.	Detection	Total
Angelina	$67.83	$731.70	$55.60			$855.13
Champion		$ 39.42				$ 39.42
Ferguson						-0-
Keith	$ 100.00	$ 665.00	$ 102.15			$867.15
Kirby	$396.50	$8,763.31	$567.05	$1,820.02	$231.80	$11778.68
Lucas		$ 25.00	$ 5.00			$ 30.00
Quinn		$ 35.00	$ 10.00			$ 45.00
Racki	$ 50.00	$ 372.53	$ 71.50			$ 494.03
SWS&D		$ 899.15	$105.40			$1004.55
TFS	$699.14	$1,798.07	$502.02	$ 2.04	$208.31	$3209.58
Totals	$1,313.47	$13,329.18	$1,418.72	$1,822.06	$440.11	$18,323.54

Summary

106 infestations were observed from the air and ground checked, Control action was completed on 63 active spots. The other spots were either inactive or not southern pine beetle. In the spots controlled, there were approximately 1500 brood trees.

During the entire southern pine beetle epidemic in this area, it is estimated that approximately 500,000 board feet of saw timber were killed at a value of $15,000.00. It is estimated that approximately 200,000 board feet was salvaged.

AEG/et
6/4/59

APPENDIX

1. Minutes of the Advisory Committee on the Control of the Southern Pine Beetle (May 26, 1958)

2. Plan for Control of Southern Pine Beetle Infestation

3. Letter to Chairman, Advisory Committee, after each aerial flight.

4. Texas Pest Detection Survey Flash Report

5. Job Order Form

6. Instructions for Cutting and Spraying of Trees Infested By Southern Pine Beetle

7. Weekly Report Form on Beetle Control Work

8. Drafting Film used as an over lay for maps for posting infested spots each aerial flight.

9. Hardin County Grid Map with scale of 1 inch equals 2 miles with the infested spots marked with red.

MINUTES FOR THE ADVISORY COMMITTEE ON THE CONTROL
of the

THE SOUTHERN PINE BEETLE

May 26, 1958

Texas Forest Service Headquarters

Woodville, Texas

Present Messrs: J. B. Fuller, D. W. Fate, Wallace Smith, Tom Nelson, Travis Edwards, Stanley Lindsey, Don Young, Kenneth Nelson, George Stephenson, C. S. Coffman, Paul Hursey, Robert Thatcher, A. D. Folweiler, E. D. Harsdorff, Alvis Owen, Art Green and E. R. Wagoner

The meeting was called to order at 10:15 by project coordinatror A. E. Green. He reported that he had flown the area on May 26 and estimated that there were 8,000 acres actually in the major infestation area. The principal owners in this trouble area are Kirby Lumber Corp,, Angelina County Lumber Co., Southwestern Settlement & Development Co. and Keith.

In the absence of the Advisory Committee Chairman, Marvin Angle, he asked Cliff Coffman to act for him as chairman. Dr. Folweiler and Mr. Hursey suggested that the committee review the plan that had been prepared by District Forester Green, and Mr. Don Young. Copies of the plan had been mailed to each member on the Advisory Committee in advance of the meeting.

It was agreed that the flights would be made bi-weekly over the 30,000 acre block. It was pointed out that the entire area would be flown June 23 by the Southern Forest Experiment Station. The flight on May 26 was made at 1200 foot altitude; however Green indicated that he would vary the altitude in order to determine the one that was the most efficient. Mr. Owen suggested that the words "Southern Forest Experiment Station" as used in paragraph A 4 and C 2 on the plan be deleted to read, "U. S. Forest Service."

The importance of training was emphasized since it was highly probable that the area of infestation would increase from the 30,000 acres to 200,000 acres or more. The one-half day training session for checkers was scheduled for Monday afternoon, June 2 at the intersection of Highway 77 and 326 at 1:00 p. m. A special invitation was extended to Mr. Alvis Owen and members of his staff.

Wally Smith indicated that Kirby Lumber Corp. intended to fly over their own lands every two weeks. It was suggested that these intensive flights be coordinated with those planned by the project coordinator, in order to avoid duplication of effort. This was agreed and the first flight was scheduled for Thursday, May 29. Kirby Lumber Corp. would furnish two men and project coordinator Green planned to accompany the Kirby Lumber Corp. personnel on the flight.

It appeared that some of the principal companies desired to do their own checking on their own lands rather than to have other checkers designated for this purpose. It was agreed that the principal companies would do the checking on their own land, since the checking and control work might be tied together. Other checkers would be designated for lands owned by other individuals. The Texas Forest Service, Champion Paper & Fibre Company, International Paper Co. and also Nona Mills will furnish checkers for land other than the three principal owners. Mr. Owen agreed to help with the training of personnel engaged in the control work.

Mr. Travis J. Edwards of the Texas Dept. of Agriculture, discussed the assistance which could be obtained from the State Dept. of Agriculture. He emphasized that they had little, if any, money available for such a project; however he pointed out that they would help with personnel and equipment. He had one man stationed in Beaumont, and others would be assigned if necessary. He also discussed the policing provisions of the "Orchard and Nursery Inspection Law." It was suggested that the original checker be the individual to make

the inspection for compliance with control directives. A new form will be developed as a report indication compliance with control instructions. This form will include control costs information.

Bob Thatcher requested help in getting data for research purposes. He indicated that unless we learn more about the Southern Pine Beetle, we might be asking the same questions fifty years from now. Mr. Young suggested that we wait until the project gets under way, so that we wouldn't delay initial control work of the project coordinator. Dr. Folweiler suggested that Thatcher prepare a modified research form, and it was agreed desirable to obtain as much basic research data as possible.

There was a lengthy discussion on financing the project. Tom Nelson asked if the Governor could make available money from his emergency fund. This question was referred to George Stanley. Paul Hursey suggested that the proportinnate cost for each owner be determined by the acreage involved, and owned by the principal parties in the epidemic area and assessments be made on this basis. Wally Smith estimated that one crew could control 400 acres a week. On this basis, 20 crews would be needed to complete the job on 10,000 acres.

Mr. Owen pointed out that the Washington office of the United States Forest Service had already approved a tentative project. All that was necessary was for the completion of the final estimated budget by the project leader, and the signing of the cooperative agreement. In all probability the agreement can be back dated to the May 13 meeting in Silsbee. It was finally agreed that the chairman of the Pest Committee should decide on the method of assessment to raise the initial funds. The meeting was adjourned at 12:45.

/et
copy 6/4/59

3.362

Plan for Control of Southern Pine Beetle Infestation
Hardin and Liberty Counties May 1958

An infestation of southern pine beetles has been in endemic proportions since January 1957 in southwestern Hardin County. Recently the infestation has spread and intensified until it is now bordering on epidemic conditions in a triangular shaped area approximately 30,000 acres with Kountze, Saratoga and Sour Lake at the angles. The infestation has possibilities of spreading west to a 250,000 acre area in Liberty County to State Highway 146, north to the Gulf Colorado and Santa Fe Railroad, south to the Beaumont, Sour Lake and Western (Missouri Pacific) Railroad and east to the Gulf States Utility line which parallels U. S. Highway 69 about two miles to the west.

At a meeting of representatives of interested landowners, U. S. Forest Service, Texas Forest Service and Texas Forestry Association at Silsbee on May 13, it was decided the Texas Forest Service would undertake to coordinate the control work by supplying a project coordinator. District Forester Arthur E. Green of Woodville has been named to that position. An advisory committee composed of Marvin Angle, Chairman, Kenneth Nelson, Wallace Smith, Furman Harsdorff, Jake Fuller, Tom Nelson, Cliff Coffman, Ed Wagoner, George Stephenson and Bob Thatcher, members, were appointed by Pest Committee Chairman George Stanley to assist Green.

In order to establish a means of contact, near the zone of infestation, a message center will be set up in the office of the county agricultural agent in Kountze. Green and others will check in at the office regularly.

Details for the plan are covered in the attached sheet.

A. Detection:

1. Flights will be made bi-weekly during 1958 or as long as the infestation remains serious on the area. Flights will be made over the area of known infestations and the periphery of this area. The first two flights, May 26 and June 9, will be to cover block described as follows: starting at the junction of Highways 326 and 770, approximately 3 miles southwest of Kountze, thence East with the pipeline to a point about two miles north of Saratoga, thence south with Sour Lake road for approximately ten miles, thence west with the gas pipe line to a point approximately two miles east of Highway 326, thence north to the point of beginning approximately 30,000 acres. Parts of grid blocks 432, 431, 430, 480, 481 and 482 are included. The proposed flights for the week of June 23 by Southern Forest Experiment Station will cover the buffer zone. Should additional areas become suspected of infestation, these areas will be added to the bi-weekly flight area.

2. The project coordinator will be responsible for hiring the reconnaissance plane and vouchering payment. He will work with Wallace Smith on timing bi-weekly flights and the efforts of Kirby Lumber Corporation and the Texas Forest Service will be pooled to minimize duplication and costs. There shall be two observers and one navigator in addition to the pilot for each flight. A 4-place plane will be used flying at height of approximately 1200 feet with three mile interval between flight lines. Planes are available for $20.00 per hour or less. A helicopter is available from Houston for $100.00 per hour with minimum of $500.00 per day.

3. Observers and navigators designated by advisory committee, will be informed by the project coordinator about the time and place to report for survey flights. On each flight there shall be an experienced observer from Kirby Lumber Corporation and Texas Forest Service or from among the others named by the advisory committee.

4. Observers and navigators without past experience will be trained by the U. S Forest Service.

5. "Flash reports" will be prepared by observer and sent in triplicate to the project coordinator. Flash reports shall be mailed the same day as the flight. One will be for the project coordinator's file for nudging deliquent ground checkers, two will be sent to the ground checker concerned by the project coordinator. These two will be returned to the project coordinator by the ground checker. One will be forwarded to owner with letter of transmittal from coordinator, the other for his file.

6. The project coordinator will prepare a brief report after each flight over the project area and supply a copy to each member of his advisory committee and contributor to control funds.

B. Ground Checking:

1. Marvin Angle will designate additional 14 "ground checkers" for the zone of infestation. A suggested list will be prepared by Smith and the project coordinator and forwarded to Angle for action. This will supplement his December 17 letter on the subject. The project coordinator will notify them of the revised assignment and inform them of procedures to follow. This can be done by the project coordinator conducting a half-day training session for the designated ground checkers. Every effort will be made to assign a "ground

checker" to investigate spots owned by or adjacent to lands owned by the "ground checker's" employer.

2. When a ground checker finds southern pine beetle present, he will determine the stage of development of the beetle, extent of infestation, ownership of land and prepare a sketch of the location. His completed "flash report" along with a grid description will be submitted to the project coordinator. If ownership is on lands of the employer of the ground checker, the proper person to take action will be informed by the ground checker with copy to the project coordinator. If on land other than employer of ground checker, the completed "flash report" will be sent to the project coordinator in duplicate.

3. Should incompleted "flash reports" be outstanding five days after the flight,the project coordinator will inform the principle of the examiner's company in order to nudge the ground checker into immediate completion of the report.

4. The project coordinator will work with Bob Thatcher on the details of placing a request on some "ground checkers," who are graduate foresters, to obtain information while ground checking that will be of help in the research project on bark beetles. When the details have been worked out, the project coordinator will make assignments on an individual basis.

C. Control:

1. From information on "flash reports" and other sources of information the project coordinator will make arrangements to:

a. Inform the landowner concerned of the infestation.

b. Urge immediate control measures.

(1) It is assumed owners such as Angelina County Lumber Co., Champion Paper & Fibre Co., Grayburg Lumber Co., International Paper Co., Kirby Lumber Corp., Southern Pine Lumber Co., Southwestern Settlement and Development Co., and possibly others will conduct control measures on their own holdings. Others such as Dishman and Lucas, Humble Oil Co., Keith Company, Nona Mills and B. Quinn Estate will probably have to be persuaded to act. This is the responsibility of the project coordinator. It is also his responsibility to give instruction in control techniques. Assistance is available from U. S. Forest Service, upon request, to give training in control. Training in control techniques will be done on an individual crew basis.

(2) Owners other than those listed above will be informed of control techniques. The control methods to be used are:

a. felling the brood tree and spraying entire bark surface with mixture of BHC and diesel oil mixture or

b. felling the brood tree and burning the entire tree.

(3) There will be several steps in getting infested trees treated.

(a) On the initial contact with the owner concerned explain the problem fully, including necessary steps in control. Urge him to use his resources in controlling the insects on his lands. If he doesn't have the resources available then proceed to the next step.

(b) The owner should be offered the assistance of a trained control crew to do the job at the owner's expense. If he is unwilling, proceed to the third step.

(c) The owner will be told of the provisions of the Orchard and Nursery Inspection Law requiring the owner to do the control within ten days or face court action. Also that the law permits power of entry for the representative of the Commissioner of Agriculture to proceed with necessary control action with the owner paying the cost. Should the owner fail to act then;

(d) The commissioner of agriculture's representative will be given full details and requested to proceed with prescribed legal action.

2. Each control crew will be given individual training prior to functioning. This training can be furnished by either the Texas Forest Service or Southern Forest Experiment Station or, cooperating landowners. The crew will be trained in all phases of the control work such as map reading, insect identification, chemical mixtures and application, and equipment operation. The project coordinator will make arrangements for this initial training as well as the subsequent training.

D. Compliance Checker:

Each owner will be requested to report control work completed to the project coordinator. Control crews will report completed control of each infestation treated to project coordinator. Ten days after an owner has been informed of an infestation, the project coordinator will assign someone, such as assistant forester or crewleaders, to check the area and make a report to the project coordinator on the conditions found, unless the coordinator is reasonably sure control action has been completed. The project coordinator will take any steps, within the limits of his facilities, necessary to get the control work completed.

E. Finances:

1. Pest Act funds under Public Law 110 were made available on a reimbursement basis starting with expenditures made on June 9 and continuing through October.

Reimbursement with Federal funds amounted to one-third of expenditures. Total expenditures by cooperators and Texas Forest Service is shown on the tabulation on the next page.

BEETLE CONTROL EXPENDITURES
June 9, 1958 - October 31, 1958

	TOTAL	Share of Reimb.
Angelina Co. Lumber Co.	$ 855.13	$ 281.53
Champion Paper & Fibre Co.	39.42	12.98
Keith Company	867.15	285.49
Kirby	11,778.68	3,877.78
Lucas & Dishman	30.00	9.88
B. E. Quinn Estate	45.00	14.82
Racki Lumber Co.	494.03	162.65
Southwestern Settlement & Dev. Co.	1,004.55	330.72
Sub-Total	$15,113.56	$4,975.85
Texas Forest Service	$ 3,259.05	$1,073.23
GRAND TOTAL EXPENDITURES	$18,373.01	
FEDERAL REIMBURSEMENT CLAIMED	$6,049.08	$6,049.08

2. Detection and Control Organization

a. Personnel Needed

1-Project Coordinator

1-Acting Project Coordinator

4-Detection - 2 observers, 1 pilot and 1 navigator

14-Ground and compliance checkers

10-Control crews each with 3 members, to be increased if epidemic spreads.

(1) The Texas Forest Service can make available the following personnel:

A. E. Green	District Forester	Full time
Jerry McIntyre	Assistant Forester	Full time
Victor Suneson	Assistant Forester	50%
Wesley Bates	Assistant Forester	50%
Harold Peck	Crewleader)	Full time for June subsequently would depend on the fire condition
Clarence Williford	Crewleader)	
Joe Martin	Crewleader)	

(2) The Texas Forest Service will furnish the personnel of the Texas Forest Service with the following vehicles - 1 car, 3 pickups and 6 jeeps.

3. The crew will be so organized that one crew member will supply pickup transportation for the members of the crew and the necessary supply of control chemicals, gasoline and equipment. Mileage will be paid for the use of this pickup.

4. A list of the larger known owners with estimated acreage within the 250,000 acre area is below.

A List of
Known Land Ownerships and Estimated Acreage Within the 250,000 Acres
of
Area For Probable Southern Pine Beetle Infestation in Liberty and Hardin Counties Delineated

Name of Owner	Approximate Acres
Kirby Lumber Corp.	57,380
Southwestern Settlement & Development Co.	34,085
Nona Mills	15,228
Keith Company	10,432
Champion Paper and Fibre Co.	8,175
Kirkpatrick & Williams	6,435
Southern Pine Lbr. Co.	4,160
International Paper Co.	3,360
Grayburg Lumber Co.	2,540
Dishman & Lucas	2,480
Jumble Oil Co.	1,922
Angelina County Lumber Co.	1,900
Moss Tie Co.	1,700
Ogletree Lumber Co.	1,494
Starr Estate	1,040
B. E. Quinn Estate	774
Total	153,105

Note: These estimates of ownerships made by A. E. Green on 27 of May during meeting of beetle advisory committee.

DY/et
6/20/59

TEXAS FOREST SERVICE

File 3.362

Woodville, Texas
June 13, 1958

Mr. Marvin Angle, Chairman
Advisory Committee on Control Southern Pine Beetle
Nacogdoches, Texas

Dear Mr. Angle:

An aerial insect detection flight was made on June 12 as scheduled. The control work done by Kirby looked from the air to be very effective.

Twenty-eight spots not previously ground checked were found. Each spot varied from two or three trees to twenty-five or thirty sorrel or dead topped trees. Spots were in grid blocks 380, 381, 431, 432 and 482.

Ground checkers have been sent flash reports. Of the twenty-eight spots located nine were presumed to be on Kirby and sent them to ground check. Four were sent to Southwestern for ground checking, four to Angelina County Lumber Company. The remaining eleven spots will be ground checked by Texas Forest Service personnel.

Pete Racki and Keith Company have agreed to do immediate control work on infestations found on their lands.

The ground checkers training session was held as scheduled on June 2. Each company represented on the advisory committee was represented. Additional training has been given on an individual basis.

Only one flash report remains outstanding from the flight of May 29 and the company responsible has been nudged.

Pest control funds under Public Law 110 became available on the date the agreement was signed between the Texas Forest Service and United States Forest Service, June 9.

Sincerely,

Arthur E. Green
Project Coordinator

AEE/vb
CC: Advisory Committee
A. D. Folweiler
Alvis Owens
George Stanley

2.362

TEXAS PEST DETECTION SURVEY

FLASH REPORT

During an aerial survey on the_____day of _____, a spot of dying timber suspected of being attacked by the southern pine beetle was observed as follows:

Flight area_____County_____ Grid_____

Other aids to location_____

_____

Estimated size of spot _____ Foliage Coloration_____

Remarks _____

_____

Observer's name:_____

In accordance with responsibilities assigned by the Texas Forest Pest Committee, will you please ground-check the designated area and record your findings below. Mail in triplicate to District Forester A. E. Green, P. O. Box 336, Woodville, Texas. Your prompt attention to this request will be appreciated.

Remarks_____

If southern pine beetle is present:

(a) Timber ownership and address of owner_____

_____

(b) Estimated number od dead, dying, and recently attacked trees

_____

(c) Estimated number of trees containing living broods_____

Remarks:_____

_____

Date of ground-check_____ Reporter's name_____

"Sketch on reverse side"

DY/et
5/28/58

TFS-61
January, 1953
Original

Texas Forest Service

The Texas A. & M. College System

File.....

JOB ORDER FORM

TO..... .....
(Person) (Title)

Completion target date..... Completed on.....
(date)

Check Priority:
Drop Other Work....., Immediate Attention....., Early Convenience....., Slack Period.....

JOB ORDER

Ordered By:..... Executed By:.....
(Name) (Name)

....
(Title) (Title)

....
(Date) (Date)

TEXAS FOREST SERVICE

3.362

Instructions for Cutting and Spraying of Trees Infested by Southern Pine Beetles

1. Crew Organization

The crew should be three men with one man with power saw, one using spray and the third to turn logs to be sprayed. The third man should be the supervisor so he can mark infested trees and supervise the work in general.

2. Chemical Treatment

The chemical will consist of mixture of No. 2 fuel oil and 11% Benzene Hexachloride (BHC) the correct mixture is one (1) gallon of BHC to forty (40) gallons of oil. (It takes approximately 1½ gallons of mixed solution to spray an average size tree)

3. Equipment Needed

1 - Power saw or other type of saw

1 - Axe

1 - Cant hook

1 - Sprayer, garden type pressure, preferable stainless steel or brass with neopvene hose because the chemical will soon eat out other types.

4. Steps to be followed in treating the infested trees

a. Cut and fell tree, cut into logs that can be easily turned or if cutting for forest products, cut into desirable lengths.

b. Then spray the entire tree, logs and top to 2 inch diameter. Spray all brak surface including stumps, small limbs down to 2 inches diameter size and loose bark that has fallen from the tree. The solution should be applied until the bark is soaked and there is some run-off. The thick bark portion should be sprayed twice to be sure the needed soaking is given, after the top surface is sprayed the log should be turned and sprayed.

c. Only one tree at a time should be felled in one place and sprayed before felling another into the same area. This prevents missing part of the tree unsprayed.

d. Keep spray nozzle about one foot from the bark surface.

e. Do not cut trees and leave them without spraying when leaving the job at end of day as some trees might be left unsprayed. This would allow the beetles to leave the area and attack other trees.

5. The following service can be obtained from the Texas Forest Service At Woodville

a. On-the-ground training of crews in insect identification and control technique.

b. Sources from which to obtain supplies and materials.

c. Texas Forest Service can supply mixed solution of BHC and diesel oil at a cost of 18¢ per gallon plus deposit on drum.

DY/AEG/et
8/27/58

FM 14

6.3562

Weekly Report
Beetle Control Program
Week ending_____
date

by_____date of preparation_____

	Number of Spots	
	This Period	Total since June 9
1. Results of aerial reconnaissance		
a. spots observed		
b. spots ground checked		
c. spots with no report on ground checking		
2. Spots with active brood trees:		
a. control completed		
b. control work in progress		
c. control work planned		
d. no plans for control work		
e. Total		
3. Uncontrolled spots by ownership for which there are no plans; give owner's name:		

4. Status of control by landowners:

	Number of Active Brood Trees Per Spot															
	Controlled				Control in Progress				Control Planned				No Plan for Control			
Owners Name	10 or Less	11-50	51-100	100 +	10 or Less	11-50	51-100	100 +	10 or Less	11-50	51-100	100 +	10 or Less	11-50	51-100	100 +
Kirby Lbr. Corp.																
Keith																
Etc.																
Unknown																

5. Names and addresses of owners unwilling to cooperate in control referred to Commission of Agriculture.

6. Narrative of highlights of week's activity:

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6/23/58